XI. *On a new Variety in the Breeds of Sheep. By Colonel* David Humphreys, *F. R. S. In a Letter to the Right Hon. Sir* Joseph Banks, *Bart. K. B. P. R. S.*

Read January 14, 1813.

SIR,

Humphreysville (in the State of Connecticut), Nov. 1, 1811.

I PROPOSE to give some account of a new variety in the breeds of sheep, which has lately sprung up in America.

SETH WIGHT, who possessed a small farm on the banks of Charles river, in the town of Dover and State of Massachusetts, about sixteen miles distant from Boston, kept a little flock composed of fifteen ewes and one ram. In the year 1791, one of the ewes produced a lamb of singular appearance. By the advice of some of his neighbours, he killed his former ram, and reserved the young one for breeding. The first season, two lambs only were yeaned in his likeness. In the following years, a number more, distinguished by the same peculiarities. Hence proceeded a strongly marked variety in this species of animals, before unknown in the world. It has been called by the name of the *Otter breed*.

This name was given from a real or imaginary resemblance to that animal, in the shortness of the legs and length of the back; by some supposed to have been caused by an unnatural intercourse; by others, perhaps as fancifully, from fright during gestation. It is only certain, that otters were then

sometimes seen on the banks of this river. They have since disappeared.

The person, who was the first to dissect one of these sheep for the purpose of ascertaining the properties and qualities which distinguish them from our common breed, has added the appropriate term of ANCON.

The singularity of form seems to be confirmed in the blood. Experiments, in crossing, have changed the strain, or, if I may be allowed so to express it, amalgamated the qualities of this with those of other breeds, so as to produce a mixed or mongrel race, in too few instances to form an exception to the theory.

When both parents are of the otter or ancon breed, the descendants inherit their peculiar appearance and proportions of form. I have heard of but one questionable case of a contrary nature.

The small number of cases where the young are said to partake in part, but not altogether, the characteristics of this breed, will not invalidate the general conclusions, established on experience in breeding from a male and female of distinct kinds.

When an ancon ewe is impregnated by a common ram, the increase resembles wholly either the ewe or the ram.

The increase of a common ewe, impregnated by an ancon ram, follows entirely the one or the other, without blending any of the distinguishing and essential peculiarities of both.

The most obvious difference between the young of this and other breeds, consists in the shortness of the legs of the former; which combined with debility or defect of organization, often makes them cripples in maturer age.

Frequent instances have happened where common ewes have had twins by ancon rams, when one exhibited the complete marks and features of the ewe; the other of the ram. The contrast has been rendered singularly striking when one short legged and one long legged lamb, produced at a birth, have been seen sucking the dam at the same time.

The facts respecting the fleeces have not been so well ascertained. They have been judged by some to be finer and heavier than those of our common breed; by others, of a medium fineness, but possessing more uniformity of pile on the same, and on different sheep of this kind. I have seen instances of their varying considerably from each other.

One case, where the young assumed the perfect likeness of the ewe, together with a meliorated pile apparently derived from the ram, is too interesting to be omitted. The inclosed specimen of wool, No. 1, is from an ancon-Merino: that is to say, the offspring of an ancon ewe and Merino ram. Its shape is the very image of the former: its wool, which covers almost the whole face, and extends quite down to the fetlocks, of a pretty fine quality (a common sign of the best blooded Merinos) partakes the silky feel and felting quality of the latter; with, I judge, about the same portion of fineness as the fleeces, which my quarter-blooded Merinos ordinarily carry. The locks, No. 2, 3, and 4, were clipped from a wether, ram and ewe descended immediately from ancon parents on both sides. The fleece of the former weighed four pounds and a half: those of the two latter somewhat rising three pounds each.

The ancons have been observed to keep together, separating themselves from the rest of the flock, when put into inclosures with other sheep.

The lambs are remarked to be less capable of standing up to suck without assistance, when first yeaned, than others.

Although they arrive somewhat later at maturity, the sheep are said to live as long as those of our common breeds; unless in some cases, where by reason of their debility and decrepitude, their health is impaired and their lives shortened.

To whatever cause it may be attributed, whether arising from defect in vertebræ, muscle, joint, or limb, it is certain that they can neither run nor jump like other sheep. They are more infirm in their organic construction, as well as more awkward in their gait, having their fore-legs always crooked, and their feet turned inwards when they walk. According to some information, the rams are commonly more deformed than the ewes.

Sprung from an individual, remarkable for what might be called a caprice of nature,* it is not one of the least extraordinary circumstances, that this misshapen and feeble race should propagate their own deformity and decrepitude until these characteristics have become constitutional and hereditary.

It may be asked with reason, why such a breed should have been continued?

The expectation of advantage, particularly in one way, doubtless prevailed over slighter considerations. We cannot boast of being such neat farmers, or of being so much attached to fine shapes in animals as the more skilful graziers and breeders in Europe; consequently the prospect of gain in some useful quality, or even of exemption from inconvenience, would more readily recompense us for the want of beauty, or reconcile us to the sight of what, to more acute or

* Lusus naturæ.

fastidious spectators, might be considered its opposite. The unfavourable appearance of Merinos, according to the generally received ideas of handsome proportions in sheep, is understood to have operated considerably in retarding their spread in France and England, as well as in a smaller degree in the United States of America.

The breed of ancons was expected to be a valuable acquisition, on account of their being less able than others to get over fences.

In New England, beyond which they have rarely migrated, there are few commons: no hedges: no shepherds: and no dogs, whose business it is to watch flocks. The small freehold estates are enclosed by fences of wood or stone. These are frequently too low to prevent active sheep from breaking out of pastures, into meadows, or grounds under cultivation. Crops are injured. Farmers discouraged. Hopes were entertained that this evil would be remedied. It has been in part.

To countervail this advantage, the drovers have complained of the great difficulty of driving these cripples to market; and the butchers, that the carcase is smaller and less saleable, than that of our common breeds. Perhaps, it is commonly not so fat. I have perceived little difference in the taste of the mutton; and presume, if served at table in equal condition, it would hardly be distinguished by better judges. They have been remarked not to fatten so easily, possibly owing to less facility or industry in gathering food, or to some fault in the organic system.

Since the introduction of Merinos, which are equally gregarious, quiet, and orderly, probably better feeders, and with greater disposition to take fat, and more highly recom-

mended by their fleeces, the ancon breed seems in danger of becoming almost extinct. They have so much declined, that, for many months, it was not an easy matter for me to procure one for dissection in Boston. That operation was performed by the ingenious Dr. SHATTUCK, who makes the following remarks.

"The sheep weighed just before it was killed forty-five "pounds. The most obvious difference in its skeleton from "the skeleton of the common sheep, so far as my superficial "observation has extended, consists in the greater looseness "of the articulations, the diminished size of the bones; but "more especially in the crookedness of its forelegs, which "causes them to appear like elbows, while the animal is walk-"ing. I have taken the liberty to call them *ancon*, from the "Greek word which signifies elbow. On dissecting the sheep, "I could not forbear noticing the comparatively flabby condi-"tion of the subscapularic muscles: this may partially account "for the great feebleness of the animal, and its consequent "quietude in pasture."

This skeleton will be presented to the President of the Royal Society, by the hand of the gentleman who is so obliging as to charge himself with the delivery of this letter.

I have been the more particular in the statement, because I deemed it important the point should be settled, so far as evidence can be adduced, that the preservation of different breeds, once clearly designated, in whatever manner obtained, whether from casualty, as in the present instance, or from calculation and cultivation, as in that of the new Leicester breed, depends more on some inherent quality in the blood, than on climate, food, or any other circumstance. Although it is allowed

that these have no inconsiderable influence, particularly the first, on the fleece, in the torrid zone. In all temperate regions, and even in the higher latitudes, where extreme cold prevails, flocks may be improved by care, or deteriorated by the want of it.

The settlement of this point would not fail to have a tendency to eradicate the remains of the pernicious prejudice, that the Merinos of Spain cannot be bred out of that country, without degenerating and losing their essential character for wool.

The beneficent Creator having ordained "that all creatures shall increase after their kinds," has still left much for man to do, in regard to those which are made more immediately subservient to his use.

We are not ignorant how much the agricultural nations of Europe and America are indebted for meliorations in their husbandry to modern researches and discoveries in chemistry, natural history, and other branches of philosophy; as well as to experiments of eminent farmers, and especially breeders of cattle.

My experience has been too limited for me to flatter myself with being able to add to the stock of materials for investigation and improvement, except by becoming in some degree the medium of communication between the agriculturalists of the two continents.

I have formerly exerted myself to enable my countrymen to improve their breeds of useful animals, perhaps not altogether without success. My present object should rather be, to supply facilities and inducements for abler men, possessed of better opportunities, to discover and disclose the best means

for selecting and spreading the most approved breed of fine woolled sheep, by which Merinos are meant, throughout the different countries which are known to be well adapted to their cultivation.

So tempting a motive for contributing my mite to the repertory of a Society, justly celebrated for the extension of human knowledge and improvements, and which has done me the honour to enrol my name in their number, was not to be resisted; and the less, as it affords me occasion of presenting, at the same time, the homage of high respect for their President, with which I have the honour to be,

Sir, your most obedient servant,

D. HUMPHREYS.